

# Lightning Safety

## LIGHTNING OVERVIEW

Lightning can provide a spectacular display of light on a dark night. This awesome show of nature also causes death and destruction. Lightning is the visible discharge of electrical energy. It is often accompanied by thunder – which is a sonic boom created by the same discharge. **If you hear thunder, lightning is a threat**, even if the storm seems miles away and the sky is blue. Lightning's electrical energy seeks a path to ground – your home, the trees in your yard or even *you* can be that chosen path!



## SAFETY TIPS

1 – **PLAN** your evacuation and safety measures. At the first sign of lightning or thunder, activate your emergency plan. Now is the time to go to a building or vehicle. Lightning often precedes rain, so do not wait for the rain to begin before suspending activities.

2 – IF **OUTDOORS**, avoid:

- Water
- High ground
- Large open areas
- Isolated trees
- All metal objects including electric wires, fences, machinery, motors, and power tools

Unsafe places include underneath canopies, small picnic or rain shelters, or near trees. Where possible, find shelter in a substantial building or in a vehicle with the windows closed. If lightning strikes nearby while you are outdoors, crouch down, put feet together, and cover ears to minimize hearing damage from thunder. Keep at least 15 feet away from other people.

3 – IF **INDOORS**, avoid:

- Water
- Doors and windows
- Using the telephone and headsets.

Turn off, unplug, and stay away from appliances, computers, power tools, and TVs. Lightning could strike exterior wires, inducing shocks to inside equipment.

4 – **SUSPEND ACTIVITIES** for 30 minutes after the last observed lightning or thunder.

5 – **INJURED PERSONS** do not carry an electrical charge and can be handled safely. Apply First Aid procedures to a lightning victim if you are qualified to do so. Call 911 or send for help immediately. **Know Your Emergency Telephone Numbers!**

## PROTECTING YOUR HOME

A lightning protection system has two objectives:

- Provide a direct path for the lightning to follow to ground; and
- Prevent destruction, damage, injury or death as it travels that path

It is important to note that a lightning protection system does not attract lightning, nor can it prevent a lightning strike. But it does provide a safe path to ground for the electric current.

### KEY

- 1 – Minimum of two ground rods (electrodes) at least 10 feet deep
- 2 – Down conductors
- 3 – Connect gutters or other grounded metals as required
- 4 – Lightning rods located within 2 feet of outside corners of chimney
- 5 – Antenna mast connected to roof conductor
- 6 – Lightning rods spaced 20 feet apart along the ridges and within 2 feet of ridge ends
- 7 – Dormers protected
- 8 – Roof projections such as weather vanes or satellite dishes should be connected to lightning protection system
- 9 – Surge protection devices installed at main electrical panel or meter
- 10 – Surge protection devices installed at electronics in house

